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New Record of Algae Feeding and Scooping by *Pan t. troglodytes* at Lokoué Bai in Odzala National Park, Republic of Congo

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Introduction

Odzala National Park is in the north west of the Republic of Congo (0°23′–1°46′N; 14°16′–16°40′E). At 13,600 km², it is one of the largest protected areas in central Africa. The vegetation in the park is a mosaic of savanna and forest islands in the south, and in the north is an evergreen rain forest with large areas of Marantaceae and many natural clearings, commonly called bais (1, 2). Primate censuses conducted in 1994–1995 showed the park to contain one of the highest known densities of chimpanzees (*Pan t. troglodytes*) with a mean density of 2.2 individuals/km² as well as a high population density of gorillas (*Gorilla g. gorilla*) which is up to 10.3 individuals/km² (3). Since April 2001, a long-term survey of the gorilla population visiting a bai close to the Lokoué River has been done by S.G. and F.L. From November 2001, C.D. has studied the use of the forest surrounding the clearing by the same gorillas. Forest clearings in the Odzala National Park are usually not visited by chimpanzees (2). However, in November 2001, we saw for the first time chimpanzees entering the Lokoué clearing. This note reports their harvesting of algae.

Observations

Observations were made from a hide located at the edge of the forest, using 10×40 binoculars and a 20–60× telescope, at an average distance of 180 m. On 3 November (during the main rainy season), three male chimpanzees entered the clearing at 11.24 hr and quickly walked to a small flood pool. They were clearly identified by distinctive physical characteristics. One of them stood quadrupedally while the two others sat by the water. Two chimpanzees, using their fingers, removed the algae filaments from the pool and ate them by putting their fingers into their mouth. The third chimpanzee, who was sitting uprooted a whole (about 20 cm long) herbaceous plant, a sedge (Cyperaceae) and clipped off the head, using his incisors, leaving the stem. He held the stem between the third and the fourth digit and immersed it into the water, withdrew it, then cautiously put it to his mouth, the stem covered with green algae. When he walked from one pool to another, the chimpanzee carried the tool between his pursed lips. The three chimpanzees spent 71 min at the clearing, and most of this time was devoted to algae feeding.

The same three individuals were later seen on 4 November (12:57–13:53 hr), and on 6 November (11:38–13:16hr), the tool-using male performing the same scooping behaviour while the two others still feeding using their hand. On 4 November, the tool-using chimpanzee left the clearing with a tool in his mouth.

Discussion

Overall, chimpanzees were seen at the bai on 6 out of 442 observation days. This is the first record of algae-feeding and algae-scooping at a forest clearing. Feeding on algae has been seen in chimpanzees at Bossou, Guinea (4) and for one individual at Mahale, Tanzania (5). At Bossou, chimpanzees use tools (twig or grass stem) to scoop algae from a pond surface but they hold it in one hand instead of keeping it between their fingers. Curiously, feeding on algae has never been seen in gorillas despite their recurrent visits to the clearing. However it was seen in black and white colobus (*Colobus guereza occidentalis*).

The use of tools to fish for insects is well known in many populations (6). Chimpanzees of the Lossi sanctuary, 90 km south of Lokoué bai, have been repeatedly seen to use complex tool-sets to fish for termites and honey (7). Eating and fishing for algae at Lokoué is probably rare due to the scarcity of pools where algae grow. Moreover, the formation of such pools is restricted to the rainy season. Any new record of the presence of a particular behavioural pattern improves the comparison of behavioural repertoires across the different chimpanzee populations across Africa (8).

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